

PIFSC Report on the Logbook Program for the American Samoa Longline Fishery October – December 2012¹

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The American Samoa longline fishery's summary catch and effort statistics for the fourth quarter of 2012, based on date of haul, are shown in Table 1. This table was derived from all logbook data submitted to the American Samoa Department of Marine and Wildlife Resources by the posting date for fourth quarter (April 9, 2012). Table 1 reflects data from an estimated 97.4% of sets made during this quarter, a total of 969 sets were reported from both large and small longline vessels. An estimated 26 logbooks had not yet been submitted by the posting date for this quarterly summary (2.6% delinquency).

Fishing effort was reduced in this quarter, compared to the 4th quarter of 2011. There were 20 active vessels during the 4th quarter of 2012, which was 13% (3 vessels) less than in the 4th quarter of 2011 (Fig. 1). The 20 vessels made 969 sets and deployed 2,849,114 hooks. This was 12.2% fewer sets (Fig. 2) and 9.2% less hooks (Fig. 3) than in the same quarter of 2011. However, the average number of hooks per set increased by 3.4%, going from 2,843 to 2,940 hooks/set.

The total catch (number of fish) for all species combined was 70,336 (Fig. 4), which is a decrease of 16.1% in comparison with 4th quarter 2011 (Fig. 4). Catches of all species, except skipjack and bigeye tuna, and billfishes, decreased in the last quarter of 2012, in comparison with the same quarter in 2011. As usual, albacore dominated the catch, with 33,571 albacore reported as caught in the 4th quarter of 2012. Compared with the 43,983 albacore caught in the same quarter of 2011 (Fig. 5), this indicates a continued downward trend for American Samoa albacore landings, and represents a 23.7% fourth-quarter decrease from 2011. Although albacore landings decreased, there was a significant increase in landings of skipjack tuna (441%), as shown in Fig. 7. Other species or groups that showed an increased 4th quarter catch included bigeye tuna (1.7%, Fig. 6) and billfishes (4.4%, Fig. 11). Decreases in 4th quarter catch were seen for yellowfin tuna (12.5%, Fig. 8), mahimahi (70.8%, Fig. 9), wahoo (11.8%, Fig. 10), and sharks (3.4%, Fig. 12).

The American Samoa longline fishery continues to experience challenging conditions with its primary target species, albacore tuna. Catch rates for albacore remained at fairly low levels, in comparison with long term averages. Catch rates of many other marketable species have also been relatively low.

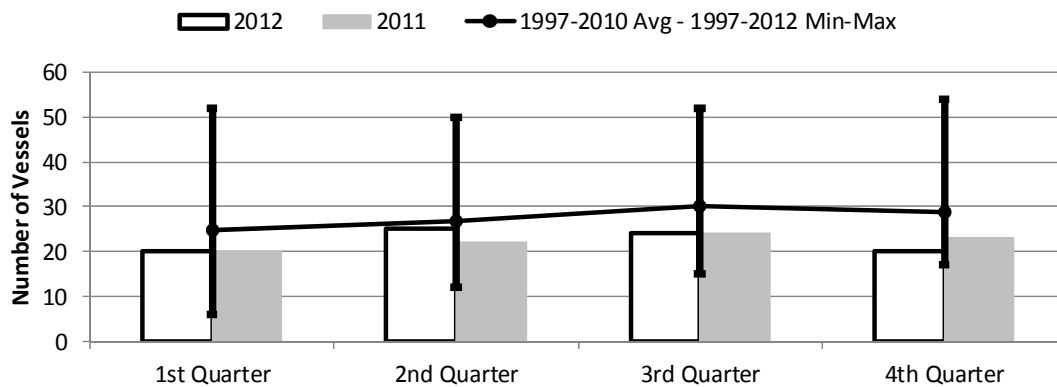
However, it is not all bad news for the American Samoa longline fishery. The overall catch per unit of effort (CPUE, number of fish per 1000 hooks for all species), increased by 27.9%, from 19.3 fish/1000 hooks in the 4th quarter of 2011 to 24.7 fish/1000 hooks in 2012 (Fig. 13). While CPUE for albacore, yellowfin tuna, mahimahi, and wahoo decreased, CPUE for all other species increased. Most noteworthy, CPUE of skipjack tuna more than quadrupled (497% increase Fig. 16). The figures show detailed CPUE trends by species. Decreases in CPUE were seen for albacore (15.9%, Fig. 14), yellowfin (3%, Fig. 17), mahimahi (75%, Fig. 18), and wahoo (2.7%, Fig. 19). In addition to skipjack, fourth quarter CPUE was seen to increase for bigeye tuna (11.9%, Fig. 15) and billfishes (13.3%, Fig. 20). The fact that a slight increase in CPUE for sharks (7.1%, Fig. 21) was not associated with increased catch can be considered another positive trend for this fishery.

¹ PIFSC Data Report DR-13-012
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Table 1. Summary of fish catch and nominal fishing effort by American Samoa Longline vessels during the fourth quarter of 2012 based on longline logbooks processed before April 9, 2012.

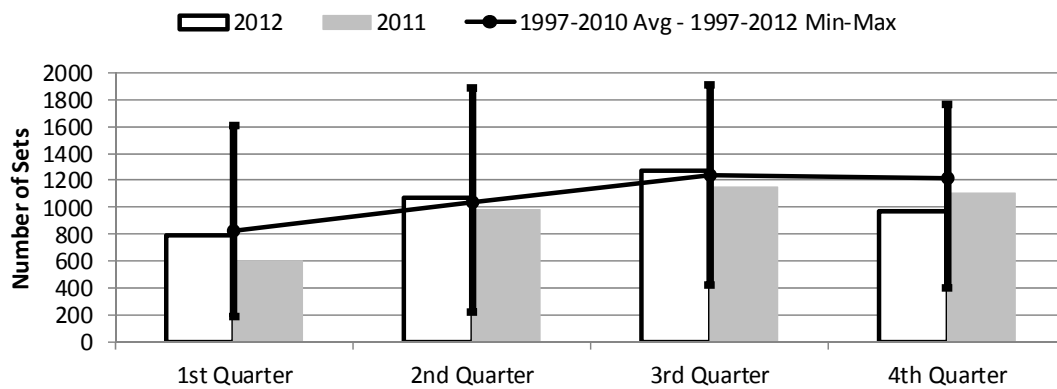
TRIP INFORMATION				
	Number of Vessels:	20		
	Number of Trips:	30		
	Number of Sets:	969		
	1000's of Hooks Set:	2,849		
	Number of Light Sticks Used:	40		
CATCH INFORMATION				
Species	Number Caught	Number Kept	Number Released	Number Caught per 1000 Hooks
BILLFISH				
Black marlin	1	1	0	0.00
Blue marlin	424	168	256	0.15
Striped marlin	125	101	24	0.04
Sailfish	91	14	77	0.03
Spearfish	241	9	232	0.08
Swordfish	90	73	17	0.03
TOTAL BILLFISH	972	366	606	0.34
SHARKS				
Blue shark	745	8	737	0.26
Shortfin mako shark	123	1	122	0.04
Thresher shark	89	2	87	0.03
White tip oceanic shark	218	0	218	0.08
Sharks (unknown)	102	3	99	0.04
TOTAL SHARKS	1,277	14	1,263	0.45
TUNA				
Albacore tuna	33,571	33,524	47	11.78
Bigeye tuna	1,342	1,311	31	0.47
Bluefin tuna	11	0	11	0.00
Skipjack tuna	25,540	23,969	1,571	8.96
Yellowfin tuna	2,723	2,611	112	0.96
TOTAL TUNA	63,187	61,415	1,772	22.18
OTHER PELAGICS				
Mahimahi	70	59	11	0.02
Moonfish	137	29	108	0.05
Oilfish	2,291	1	2,290	0.80
Pomfret	226	15	211	0.08
Wahoo	2,056	1,794	262	0.72
TOTAL OTHER PELAGICS	4,780	1,898	2,882	1.68
NON-PMUS				
Pelagic fishes (unknown)	120	0	120	0.04
TOTAL NON-PMUS	120	0	120	0.04
TOTAL ALL SPECIES	70,336	63,693	6,643	24.69

Figure 1. American Samoa Longline Vessels Submitting Logs by Quarter for



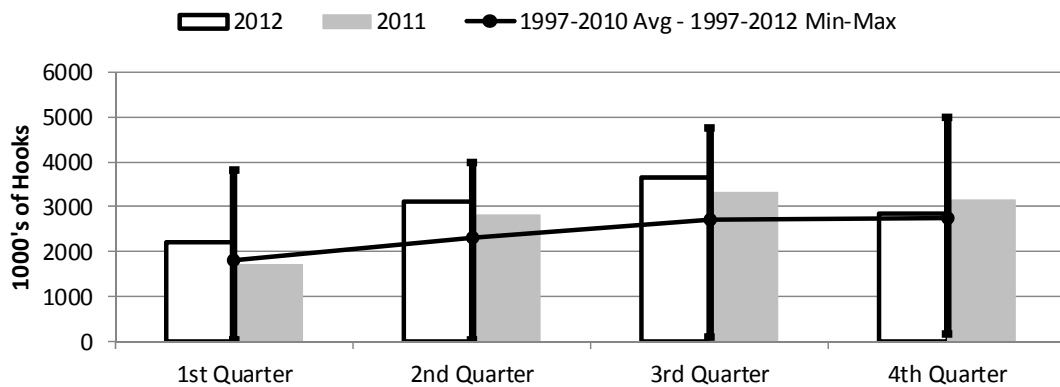
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	20	25	24	20
2011	20	22	24	23
1997-2012 Max	52	50	52	54
1997-2010 Avg	24	26	30	28
1997-2012 Min	6	12	15	17

Figure 2. Number of Sets by American Samoa Longline Vessels by Quarter for



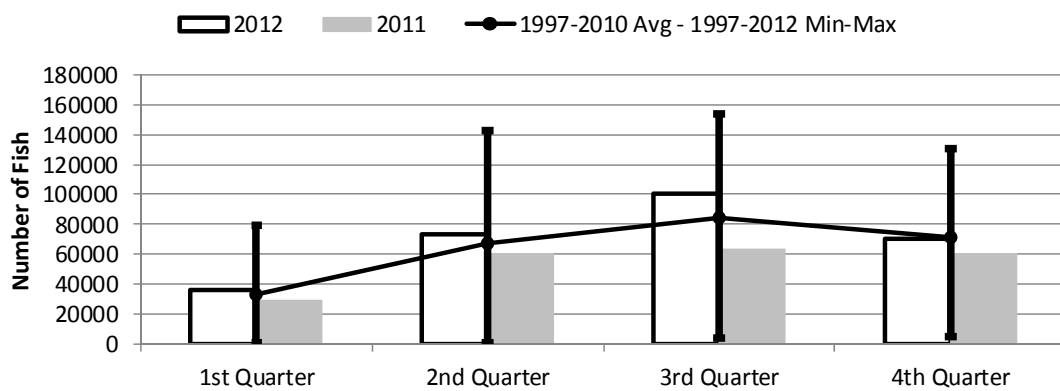
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	788	1,069	1,273	969
2011	601	986	1,155	1,104
1997-2012 Max	1,602	1,886	1,904	1,759
1997-2010 Avg	830	1,033	1,242	1,216
1997-2012 Min	192	223	424	401

Figure 3. Number of Hooks Set by the American Samoa Longline Fleet by Quarter for



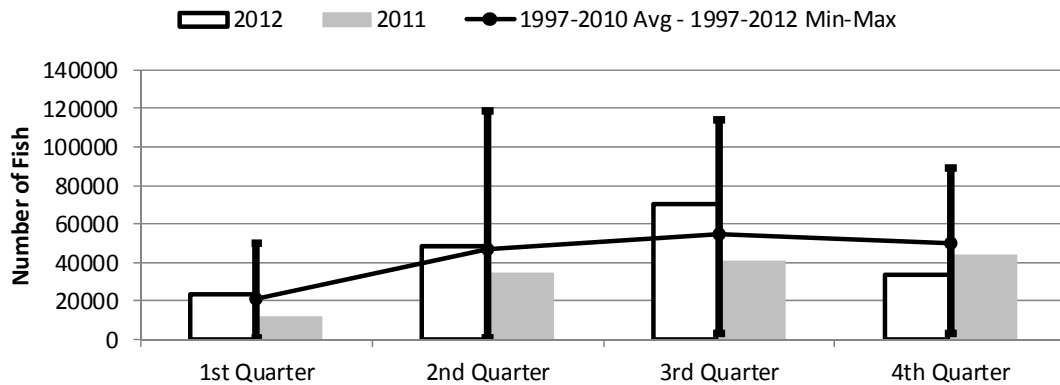
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	2,194	3,101	3,656	2,849
2011	1,695	2,811	3,317	3,138
1997-2012 Max	3,805	3,992	4,769	4,985
1997-2010 Avg	1,795	2,296	2,726	2,743
1997-2012 Min	41	50	101	175

Figure 4. American Samoa Longline Total Catch (All Species) by Quarter for



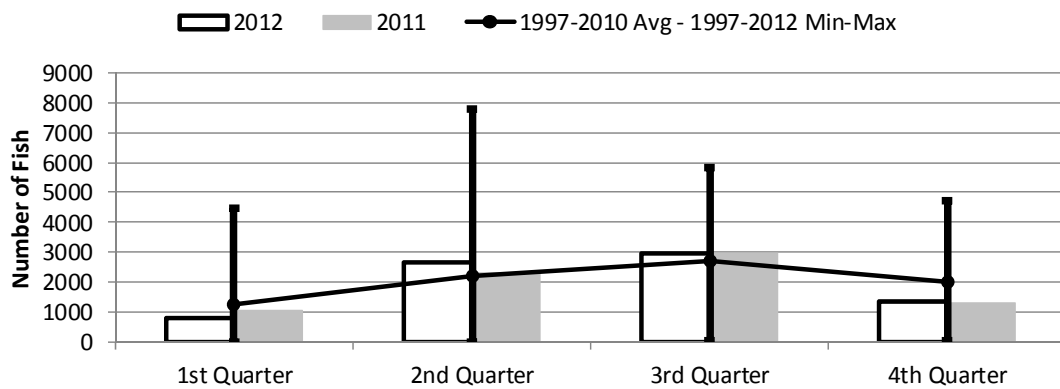
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	35,897	73,742	100,599	70,336
2011	29,498	60,624	63,705	60,582
1997-2012 Max	79,588	142,603	153,301	130,238
1997-2010 Avg	33,269	67,339	84,531	71,299
1997-2012 Min	1,315	1,416	4,127	5,201

Figure 5. American Samoa Longline Albacore Catch by Quarter for



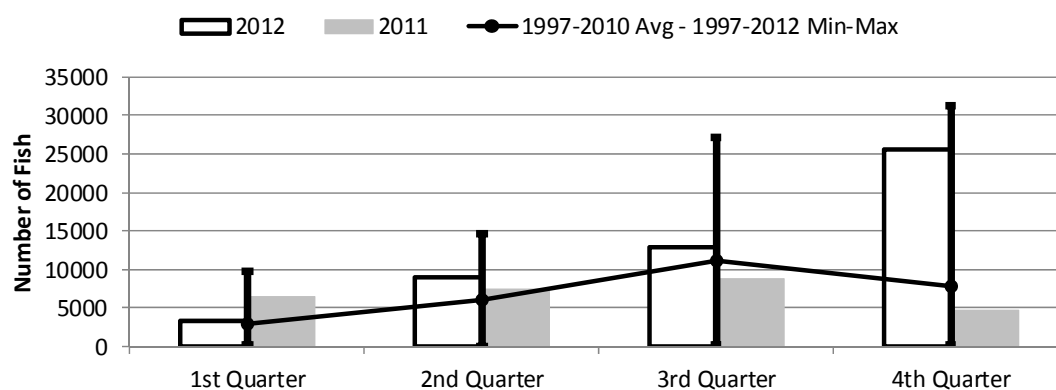
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	23,443	48,162	70,665	33,571
2011	11,899	34,320	40,269	43,983
1997-2012 Max	50,382	118,994	113,831	89,389
1997-2010 Avg	21,134	47,018	55,018	49,749
1997-2012 Min	940	851	3,182	3,465

Figure 6. American Samoa Longline Bigeye Tuna Catch by Quarter for



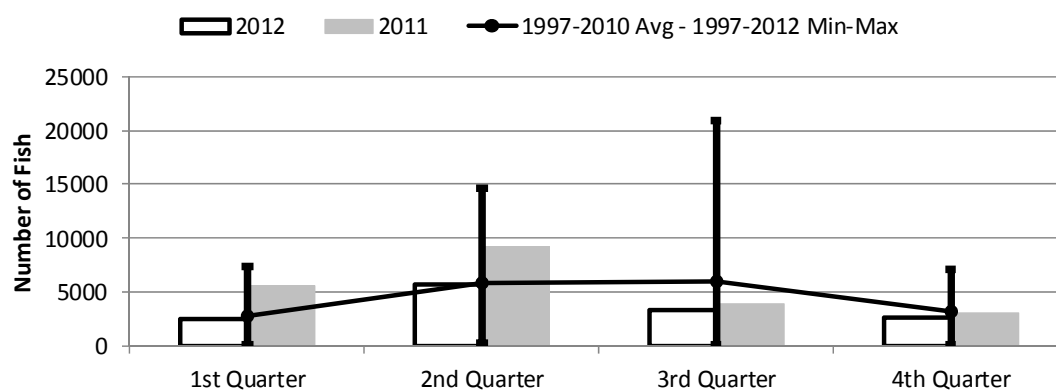
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	800	2,651	2,965	1,342
2011	1,043	2,303	2,948	1,320
1997-2012 Max	4,470	7,785	5,824	4,728
1997-2010 Avg	1,283	2,236	2,702	1,998
1997-2012 Min	6	26	55	55

Figure 7. American Samoa Longline Skipjack Tuna Catch by Quarter for



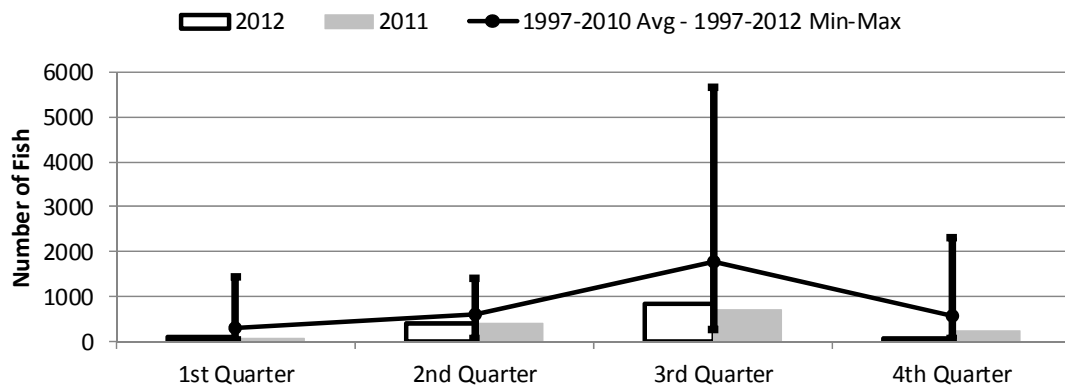
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	3,307	9,040	12,894	25,540
2011	6,446	7,465	8,717	4,718
1997-2012 Max	9,801	14,606	27,234	31,191
1997-2010 Avg	2,994	6,021	11,139	7,828
1997-2012 Min	116	6	244	178

Figure 8. American Samoa Longline Yellowfin Tuna Catch by Quarter for



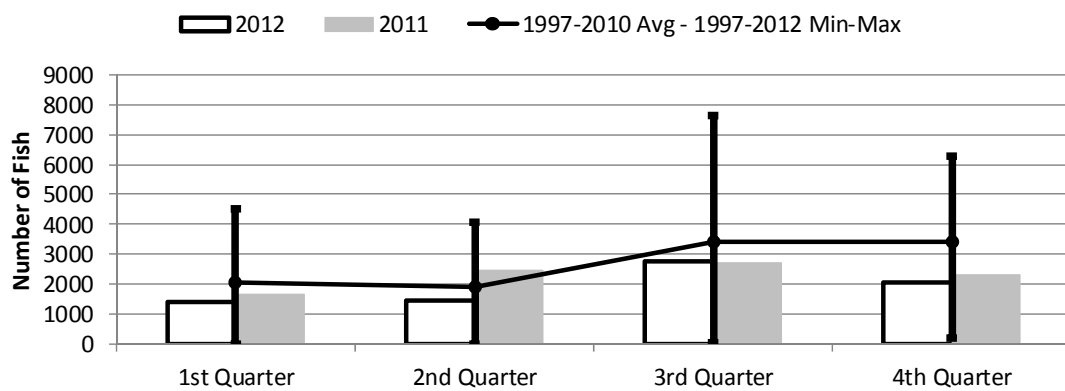
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	2,530	5,705	3,300	2,723
2011	5,645	9,185	3,887	3,111
1997-2012 Max	7,426	14,681	20,993	7,104
1997-2010 Avg	2,811	5,872	6,068	3,207
1997-2012 Min	213	356	84	177

Figure 9. American Samoa Mahimahi Catch by Quarter for



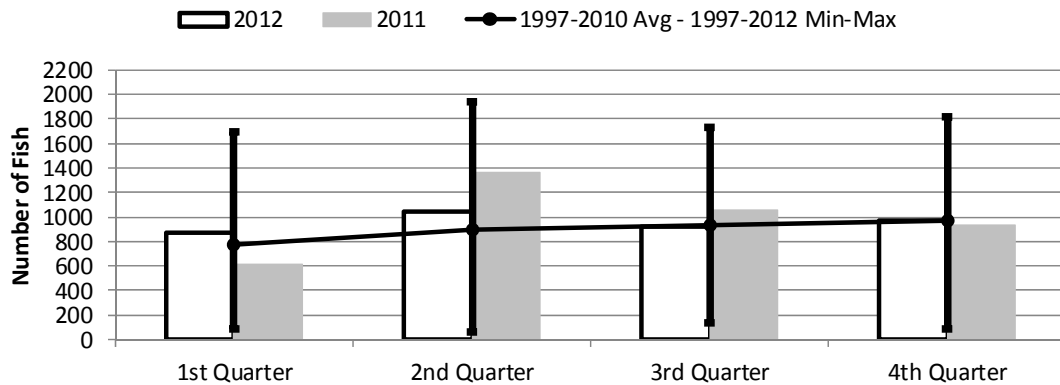
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	93	417	838	70
2011	72	405	690	240
1997-2012 Max	1,454	1,392	5,642	2,297
1997-2010 Avg	294	590	1,779	586
1997-2012 Min	30	59	280	70

Figure 10. American Samoa Wahoo Catch by Quarter for



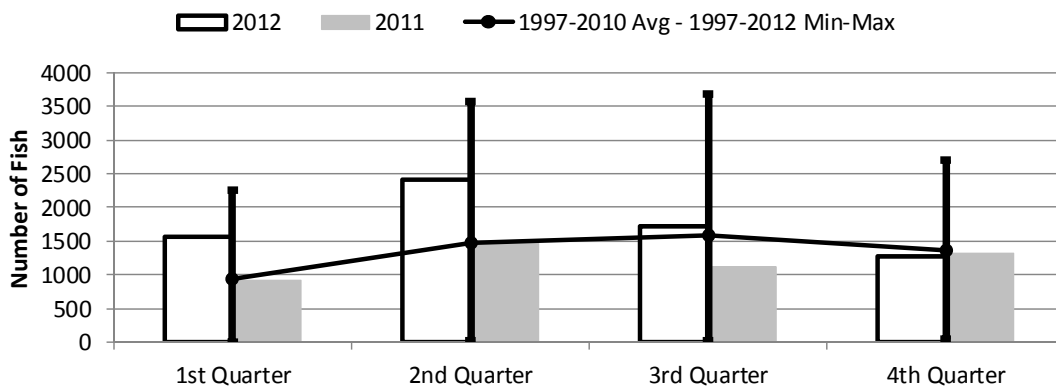
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	1,413	1,472	2,768	2,056
2011	1,682	2,484	2,701	2,331
1997-2012 Max	4,524	4,076	7,629	6,281
1997-2010 Avg	2,042	1,913	3,399	3,412
1997-2012 Min	27	20	68	210

Figure 11. American Samoa Billfish Catch by Quarter for



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	875	1,045	923	972
2011	611	1,367	1,061	931
1997-2012 Max	1,692	1,934	1,729	1,819
1997-2010 Avg	777	900	930	973
1997-2012 Min	83	58	132	84

Figure 12. American Samoa Shark Catch by Quarter for



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	1,565	2,405	1,723	1,277
2011	915	1,475	1,112	1,322
1997-2012 Max	2,260	3,562	3,686	2,697
1997-2010 Avg	943	1,472	1,594	1,362
1997-2012 Min	5	16	26	49

Figure 13. American Samoa Longline Total Catch per 1000 Hooks by Quarter for

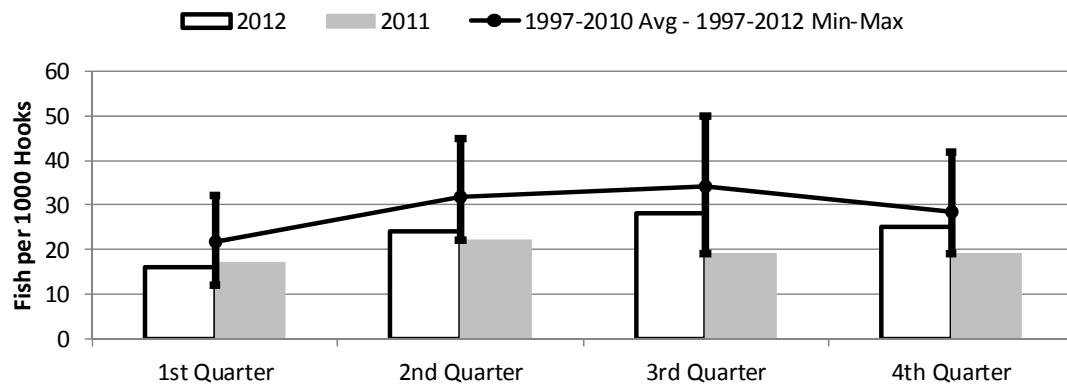


Figure 14. American Samoa Longline Albacore Catch per 1000 Hooks by Quarter for

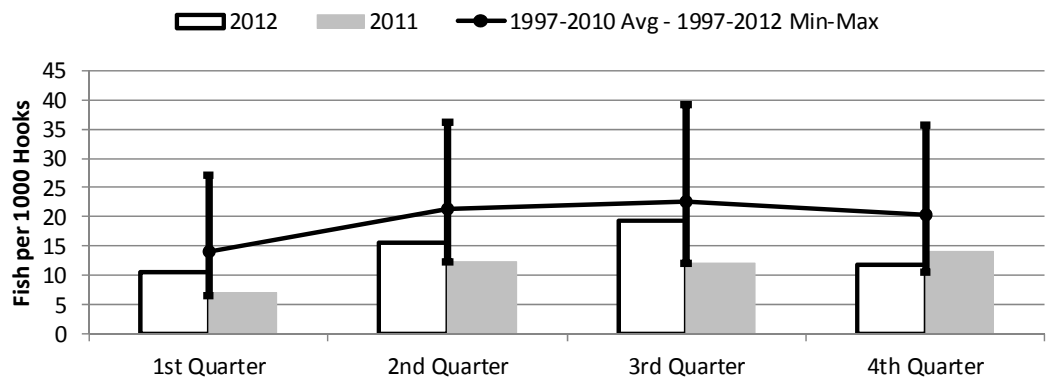
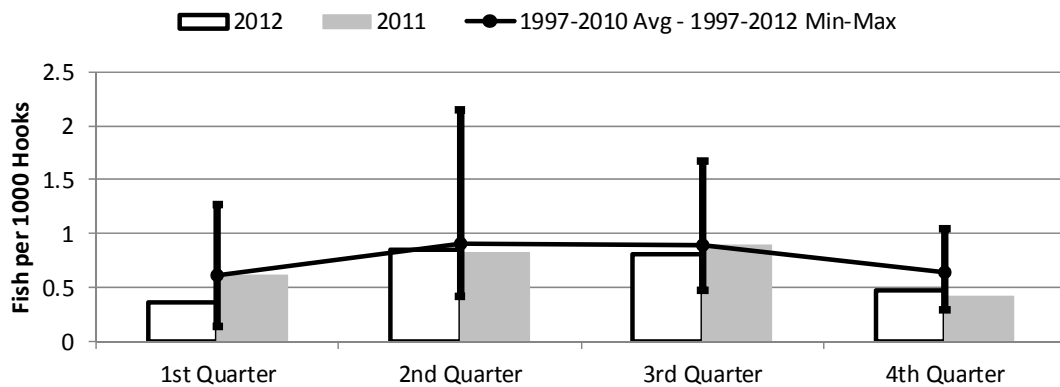
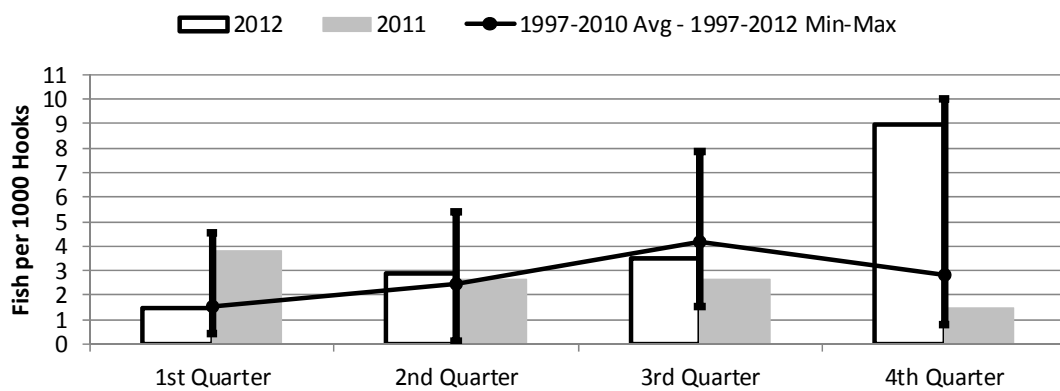


Figure 15. American Samoa Longline Bigeye Tuna Catch per 1000 Hooks by Quarter for



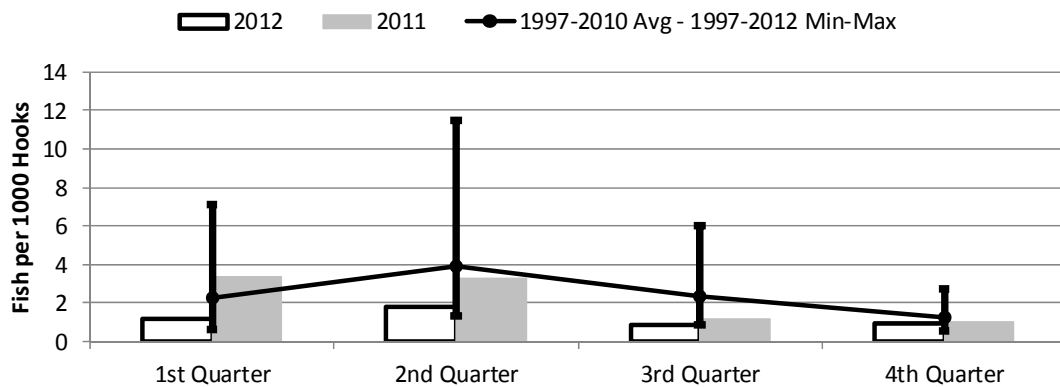
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	0.36	0.85	0.81	0.47
2011	0.62	0.82	0.89	0.42
1997-2012 Max	1.27	2.15	1.68	1.05
1997-2010 Avg	0.62	0.90	0.89	0.64
1997-2012 Min	0.15	0.41	0.48	0.29

Figure 16. American Samoa Longline Skipjack Tuna Catch per 1000 Hooks by Quarter for



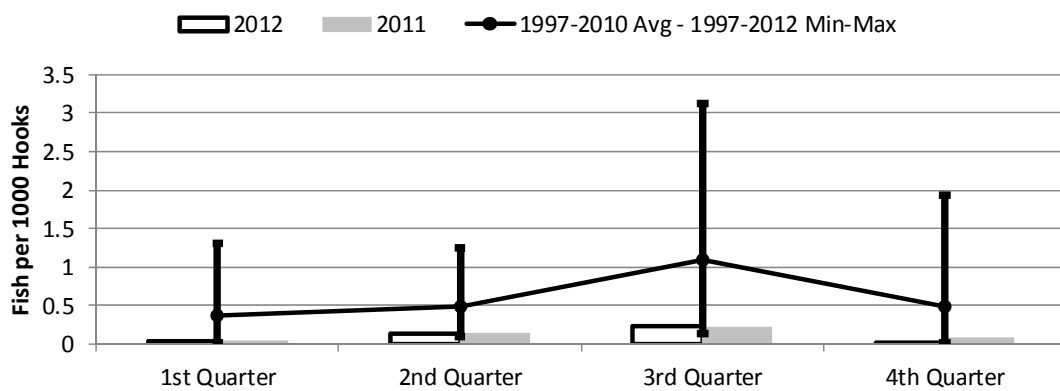
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	1.51	2.92	3.53	8.96
2011	3.80	2.66	2.63	1.50
1997-2012 Max	4.56	5.39	7.84	9.98
1997-2010 Avg	1.57	2.46	4.19	2.81
1997-2012 Min	0.44	0.12	1.56	0.79

Figure 17. American Samoa Yellowfin Tuna Catch per 1000 Hooks by Quarter for



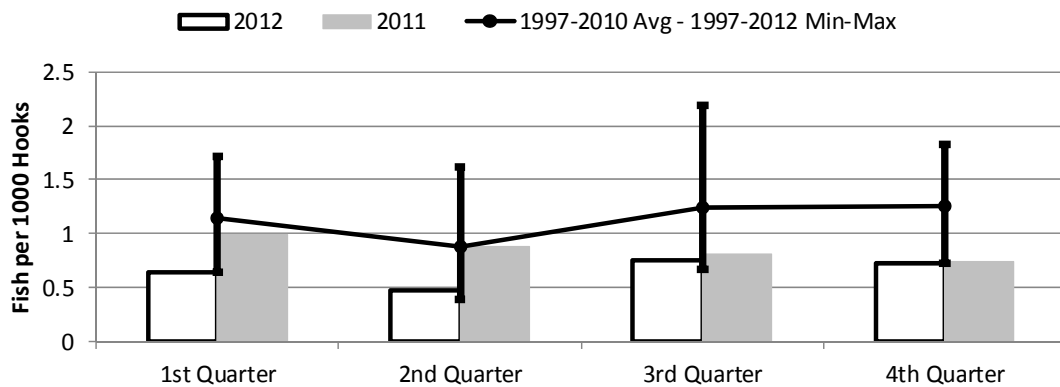
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	1.15	1.84	0.90	0.96
2011	3.33	3.27	1.17	0.99
1997-2012 Max	7.11	11.51	6.04	2.76
1997-2010 Avg	2.24	3.95	2.35	1.26
1997-2012 Min	0.66	1.34	0.83	0.55

Figure 18. American Samoa Longline Mahimahi Catch per 1000 Hooks by Quarter for



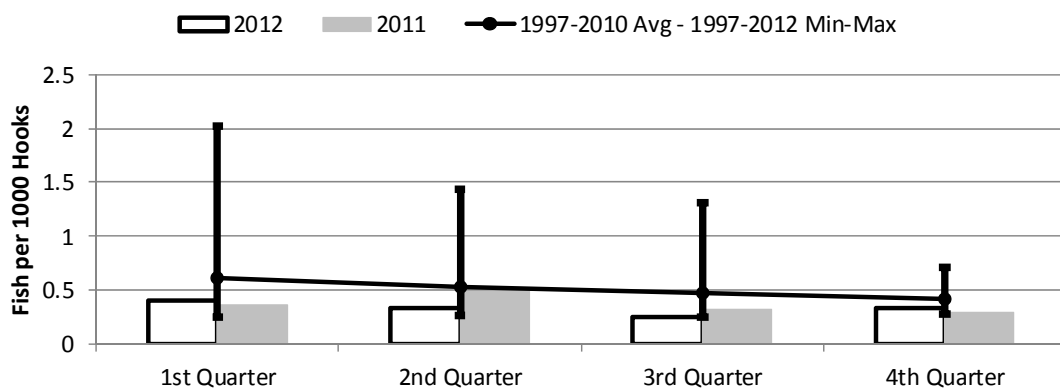
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	0.04	0.13	0.23	0.02
2011	0.04	0.14	0.21	0.08
1997-2012 Max	1.30	1.25	3.13	1.93
1997-2010 Avg	0.38	0.49	1.10	0.50
1997-2012 Min	0.02	0.10	0.14	0.02

Figure 19. American Samoa Wahoo Catch per 1000 Hooks by Quarter for



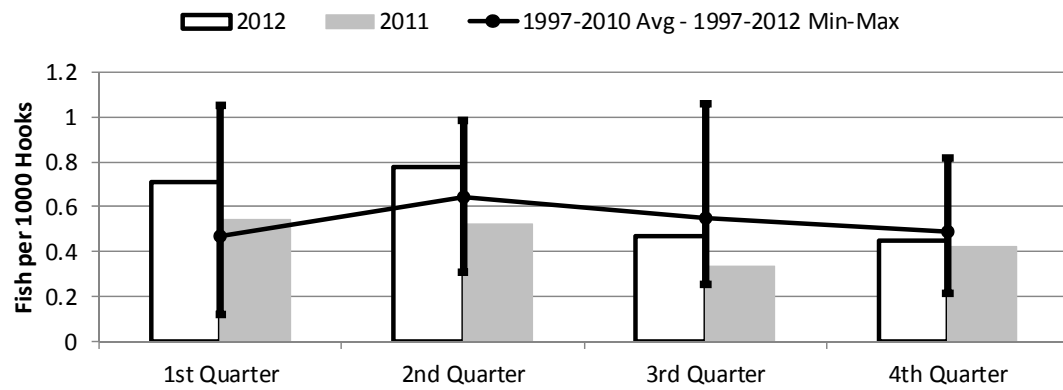
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	0.64	0.47	0.76	0.72
2011	0.99	0.88	0.81	0.74
1997-2012 Max	1.71	1.62	2.20	1.83
1997-2010 Avg	1.14	0.88	1.24	1.25
1997-2012 Min	0.64	0.39	0.67	0.72

Figure 20. American Samoa Billfish Catch per 1000 Hooks by Quarter for



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	0.40	0.34	0.25	0.34
2011	0.36	0.49	0.32	0.30
1997-2012 Max	2.02	1.44	1.31	0.71
1997-2010 Avg	0.62	0.53	0.47	0.41
1997-2012 Min	0.25	0.26	0.25	0.28

Figure 21. American Samoa Shark Catch per 1000 Hooks by Quarter for



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	0.71	0.78	0.47	0.45
2011	0.54	0.52	0.34	0.42
1997-2012 Max	1.05	0.99	1.06	0.82
1997-2010 Avg	0.47	0.64	0.55	0.49
1997-2012 Min	0.12	0.31	0.26	0.22